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UNITED STATES DEPARTMENT OF AGRICULTURE
Agricultural Research Service
Animal Disease and Parasite Research Branch
Washington 25, D. C.

Anaplasmosis Field Studies

Directions for Collecting and Submitting Bovine Serum Samples for Complement-Fixation Testing.

Before attempting to collect blood serum samples proper provision should be made to safeguard against carrying any possible infection from one animal to another. Clean and sterile instruments should be provided for each animal. Bleeding needles and other instruments used in obtaining blood from one animal should be cleaned and sterilized before being used on another animal. The hands of the operator should be disinfected immediately before the bleeding of each animal.

The importance of the above procedure cannot be overestimated in the control of infectious diseases, especially those in which carriers are common and difficult to detect clinically, such as anaplasmosis in cattle.

As the serum is the constituent of the blood which is utilized in applying the complement-fixation test, it is extremely important that good specimens are forwarded to the laboratory for diagnosis. A good specimen of serum is essential to a conclusive and reliable diagnosis. To obtain a good clear specimen of serum the following procedure is recommended:

Draw several ounces of blood from the jugular vein into a dry, clean, preferably sterile, wide mouthed bottle or test tube.

The blood should not be collected until a steady stream flows from the needle. After the bottle is filled, carefully set to one side and allow it to stand for at least thirty minutes, or until complete coagulation has taken place. It is important to see that the blood is not disturbed until complete coagulation has occurred as the serum will not separate as readily if agitated before coagulation takes place.

Allow the clotted blood to stand until the clear yellow serum separates from the clot.

When sufficient serum has separated from the clot it should be poured off into a small vial, being very careful not to allow the entrance of any red cells. If the clot fails to contract sufficiently after six hours to allow the yellow serum to separate from it, this process may be accomplished by carefully loosening the clotted blood from the sides of the bottle by means of a sterile wire. The sample is then permitted to stand long enough for the clot to contract, leaving the clear yellow serum above, which should then be poured off.

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If the sample is to be shipped a considerable distance or in warm weather, the serum should be phenolized 0.5%.

This is done by adding one part of a 5% solution of phenol to nine parts of serum. It is important not to exceed these proportions of phenol and serum.

The vial in which the serum is forwarded should be properly labeled (a) giving a description of the animal from which the sample was obtained, (b) owner's name and address, and (c) name of person forwarding the sample. The sample should be mailed to:

Animal Disease and Parasite Research Branch
Agricultural Research Service
United States Department of Agriculture
Washington 25, D. C.

Attention: Dr. A. M. Lee
Room 305 East Administration Building

A letter should also be mailed at the same time notifying the Branch of such shipment, and a copy of this letter should accompany the samples.